TRANSLATION

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference **63284**	FOR FURTHER ACTION	See Form PCT/IPEA/416
International application No. **PCT/EP2004/053341**	International filing date *(day/month/year)* **08.12.2004**	Priority date *(day/month/year)* **19.12.2003**

International Patent Classification (IPC) or national classification and IPC

G06F9/44

Applicant

THALES

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of **6** sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

   a. ☐ *(sent to the applicant and to the International Bureau)* a total of _____ sheets, as follows:

      ☐ sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).

      ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

   b. ☐ *(sent to the International Bureau only)* a total of (indicate type and number of electronic carrier(s))

      _____ , containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

   ☒ Box No. I   Basis of the report

   ☐ Box No. II   Priority

   ☐ Box No. III   Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

   ☐ Box No. IV   Lack of unity of invention

   ☒ Box No. V   Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

   ☐ Box No. VI   Certain documents cited

   ☐ Box No. VII   Certain defects in the international application

   ☐ Box No. VIII   Certain observations on the international application

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

Form PCT/IPEA/409 (cover sheet) (April 2005)

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/053341

Box No. I	Basis of the report

1. With regard to the **language**, this report is based on:

    ☒ the international application in the language in which it was filed

    ☐ the translation of the international application into _____ , which is the language of a
    translation furnished for the purposes of:

    ☐ international search (Rule 12.3(a) and 23.1(b))

    ☐ publication of the international application (Rule 12.4(a))

    ☐ international preliminary examination (Rule 55.2(a) and/or 55.3(a))

2. With regard to the **elements** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

    ☐ the international application as originally filed/furnished

    ☒ the description:

    pages ___1-6_____ as originally filed/furnished

    pages* _____ received by this Authority on _____

    pages* _____ received by this Authority on _____

    ☒ the claims:

    nos. ___1-6_____ as originally filed/furnished

    nos.* _____ as amended (together with any statement) under Article 19

    nos.* _____ received by this Authority on _____

    nos.* _____ received by this Authority on _____

    ☒ the drawings:

    sheets ___1-6_____ as originally filed/furnished

    sheets* _____ received by this Authority on _____

    sheets* _____ received by this Authority on _____

    ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

    ☐ the description, pages _____

    ☐ the claims, nos. _____

    ☐ the drawings, sheets/figs _____

    ☐ the sequence listing *(specify):* _____

    ☐ any table(s) related to sequence listing *(specify):* _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

    ☐ the description, pages _____

    ☐ the claims, nos. _____

    ☐ the drawings, sheets/figs _____

    ☐ the sequence listing *(specify):* _____

    ☐ any table(s) related to sequence listing *(specify):* _____

* *If item 4 applies, some or all of those sheets may be marked "superseded."*

Form PCT/IPEA/409 (Box No. I) (April 2005)

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-6	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	1-6	NO
Industrial applicability (IA)	Claims	1-6	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

Reference is made to the following documents:

D1: "I-Logix, Inc. - Rhapsody Overview",
23 August 2000;

D3: GB-A-2 353 613.

1.   The subject matter of claim 1 is novel (PCT
Article 33(2)).

None of the available documents describes a method
for automatically tracing UML model requirements,
including the step of "automatically generating a
navigation module containing all of the UML
objects indicated by at least one requirement and
a level n requirement module".

2.   The present application does not fulfil the
requirements set forth in PCT Article 33(1)
because the subject matter of claim 1 does not
involve an inventive step as defined in PCT
Article 33(3).

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

2.1   The aim of the claimed method as defined in claims 1 to 6 is to trace automatically UML model requirements generated by a modelling tool and to update same. This method consists of a series of steps that are worded in a purely abstract and intellectual manner.

2.2   The non-technical portion defines a method for ~~automatically~~ tracing UML model requirements ~~generated by a modelling tool~~ and updating same, including the steps of:

(a) generating the requirements when the UML model elements are generated;

(b) exporting the requirements input into the model ~~to the requirement management tool~~ once the model has been stabilised; and

(c) ~~automatically~~ generating a navigation module containing all of the UML objects indicated by at least one requirement and a level n requirement module.

This non-technical portion of the claimed method is considered to define an information modelling method. Said method is defined in a purely abstract manner and, as such, constitutes a mental activity that has all of the features typical of non-technical areas of knowledge and is, therefore, very close to the non-inventions defined in PCT Rule 67.1. It follows that, in order to evaluate inventive step, this activity should be treated like any other human activity in a non-technical field that, as such, does not

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

constitute an invention under the terms of PCT Rule 67.1.

2.3   The technical portion discloses that:

(i)   the tracing method is automatic;

(ii)   the UML model requirements are generated by a modelling tool;

(iii)   the requirements input into the model are exported to the requirement management tool; and

(iv)   a navigation module and a requirement module are generated automatically.

This technical portion can be considered to be a mere automation of the non-technical method defined in claim 1. The problem that the present invention is intended to solve can therefore be considered to be that of implementing this abstract method in a computer.

2.4   Document **D1** discloses the "RHAPSODY" modelling tool for generating UML models. It further includes "interfaces to the best …, requirements traceability tools …" (page 1, paragraph 5). Document **D3** discloses the requirement management tool, "DOORS".

It would be a matter of routine for a person skilled in the art, aware of and using this modelling tool and this requirement management tool, to use these two tools to carry out steps (a) and (b). Similarly, it would be a matter of

| Box No. V | **Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement** |

routine for such a person to create software for automatically carrying out step (c) so that the full method can be implemented on a computer.

2.5   It follows that, in so far as the claimed invention is technical in nature, it is obvious from documents **D1** and **D3**. As a result, claim 1 does not fulfil the requirement of inventive step set forth in PCT Article 33(3).

3.   Dependent claims 2 to 6 do not contain any features which, in combination with the features of any one of the claims to which they refer, might define subject matter that fulfils the PCT requirement of inventive step. Said claims define non-technical features or implementation details that are within the abilities of a person skilled in the art.